WEST KENT
ARCHAEOLOGICAL SOCIETY

Geophysical Report

"Progress" Roman Villa

Otford, Kent

April 2015

WKAS/Pro/2015/1

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Summary

The survey aimed to precisely locate and determine the extent and layout of the Otford Roman Villa known as Progress, using the earth resistance technique.

The survey results showed a mix of clear and confusing wall lines which fix the position of the villa but do not clarify an exact plan, the buildings also continue outside of the surveyed area so the extent of the villa cannot be certain.

The survey also shows circular enclosures likely to be of pre Roman date.

Contributors

Andrew Putman, Kevin Fromings and Geoff Burr

Acknowledgements

The author gives thanks to all members of West Kent Archaeological Society who helped with the survey and to the landowners who kindly gave permission for access to their gardens and land.

Fieldwork and Report

The fieldwork was carried out on the 21st, 22nd and 29th March 2015 and the report was completed 17th April 2015.

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Contents

Introduction

The villa site at Otford, NGR TQ5365 5919, known as Progress Villa was first discovered in 1926 by the landowner who found a flint wall when planting trees. The following year an excavation by Bertram W Pearce uncovered numerous walls as well as Roman pottery sherds and coins (Pearce, 1927, page 153) .
A further excavation took place in 1971 to relocate the villa, the first trench found no evidence of a building, the second trench found a masonry wall (Mynott 1971). It is not known whether this wall was one that was found in the 1927 excavation.

The written records from both excavations contains sketch drawings and plans using a mixture of yards and feet with approximate orientations referring to objects that no longer exist in the landscape, making the task of locating the trench positions unlikely. Photographs of the 1927 excavation exist in the archive at Sevenoaks library showing the open trenches but relating the pictures to the modern fields and gardens is again unlikely. The pictures do however show the chalk bedrock just below the surface with only 10cm – 20cm of topsoil, the pictures also show that the walls found in 1927 range from being just below the surface to approximately 1 metre down with floor levels approximately 2 metres below the surface.

In 2006 a geophysical survey was undertaken by Otford and District Archaeological Group, the report claims to identify wall lines, kilns and an apse from possible bath house (Walshe, 2008) but the survey results published make the possibility of identifying such features unlikely.

This survey aims to precisely locate and determine the extent and layout of the building using earth resistance survey and to try and relate the previous excavations to the results as well as compare the 2006 geophysical survey.

The site is situated on the south facing slope of the Darenth Valley in Otford, bedrock consists of chalk with no superficial geology recorded. The site is currently a mix of private back gardens, paddocks and pasture containing a variety of outbuildings, hedges, trees and fences (Figure 1).

The weather during the survey was overcast with occasional light showers, the ground conditions were damp and soft with hard compacted area around the stable.

Method

The earth resistance survey was conducted over the land indicated in Figure 2, the blue line indicating the area surveyed, the red area indicates the scheduled area.
A Geoscan RM85 resistivity meter was used with a twin probe array spaced at .5 metre.
Readings were taken at 1metre x 1 metre intervals.
20 x 20 metre grids were laid out by tape using canes as grid markers.
The survey consisted of 45 grids covering approximately 1.8 hectare.
Dummy logs were performed around obstacles.
Survey data was processed using Snuffler freeware software.
Processing consisted of Edge Correction. Modify Selection of subtraction of 1.5 ohms to grids B1 to B12 and C3, 4, 7, 8, 9 and 10.
The despike, clip data and high pass filter were used then horizontal and vertical Interpolation.

Results

The survey shows generally lower resistance responses lower down the site with areas of even lower response while resistance increase at the northern end of the site.
The results indicate the villa building is in the northern area of the scheduled area orientated North-West to South East. (Figure 3)
The survey area contained a lot of modern outbuildings and fences (Figure 4) but from within the results archaeological features can be observed.
Clear and regular high resistance linear features turning at right angles are likely to indicate the remains of walls of the villa buildings, possibly enclosing a large courtyard. The presence of modern outbuildings with in the courtyard area pose difficulty in discerning archaeology from the effect that these buildings have had.

Similar high resistance anomalies can be identified in the North Eastern area of the survey site, the interpretation that this is another wing of the villa on a different alignment possibly indicating a separate phase of building. However, it should be noted that this possible wing falls on an area of garden terracing and could reflect the chalk geology being closer to the surface.

The lower resistance areas to the southern part of the site show two circular low resistance features both at approximately 15 metres diameter indicating Iron Age houses. Another circular features but less pronounced and measuring approximately 7 metres diameter is close by.

There are three low resistance responses indicating pits, one of which is inside one of the Iron Age houses. A trapezoid shaped ditch enclosure appears to also cut through this house. At the Western area of the site a large curving high resistance feature with matching low resistance feature may indicate a bank and ditch but could be a result of geology.

4 large pit responses of elongated shape, with one measuring approximately 13 metres long, appear in the Southern area of the site.

Figure 5 shows the interpretation of the results.

Conclusion

The detail revealed in the survey has not determined the extent and plan of the villa as had hoped, the extent is likely to continue beyond the surveyed area while the ability is deduce clear wall lines is hampered by the proximity of the chalk geology close to the surface as well as modern disturbance. The two previous excavations, possible changes and demolition causing rubble spread in the Roman period may also explain the inability to produce a clear plan.

It is likely that based on the discovery of the Iron Age round houses that this site shows the transition period from Iron Age to Roman.

Analysis of Results in Comparison to Previous Excavations and Survey

The excavations of 1927 and 1971 produced only sketch maps of the walls found and there approximate location. Despite the geophysics results it still not be concluded exactly where there excavations took place or which walls were found.

A courtyard was noted as being found in 1927 measuring 64ft by 40ft, although the possibility of a courtyard exists based on the current survey the dimensions measure approximately 130ft by 80ft.

The finding of an Iron Age Brooch during the 1927 excavation improves the possibility of Iron Age activity on the site.

The 2008 geophysical survey by Otford and District Archaeological Society claims to have discovered 50 possible pits, bath house or apse and robbed out walls.

The walls and robbed out walls identified in the results are actually the fences that separate the paddocks, the pits and flint heaps identified are more likely to be rogue data readings collected by the resistivity machine that were not filtered during processing. The identification of the kiln or apse is unlikely based on the small portion that is in the results, it is also more likely the modern disturbance and proximity to outbuildings and trees have caused the result.

The only archaeological feature in the 2008 survey are the wall lines north west of the stable block which were noted in the report as being the likely position of the 1927 excavation(Figure 6).

References

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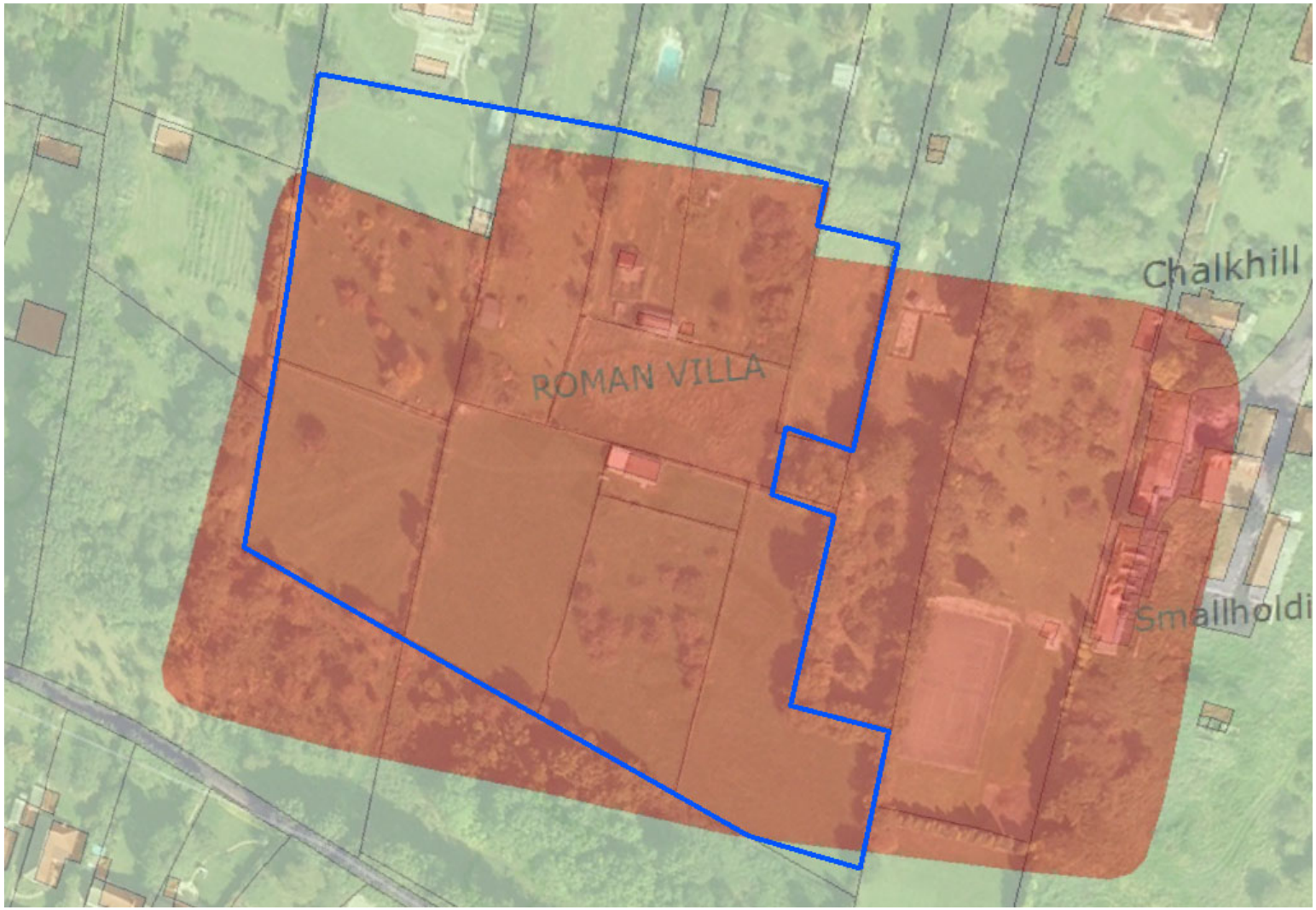

Figure 2. © 2015 Getmapping Plc ©English Heritage

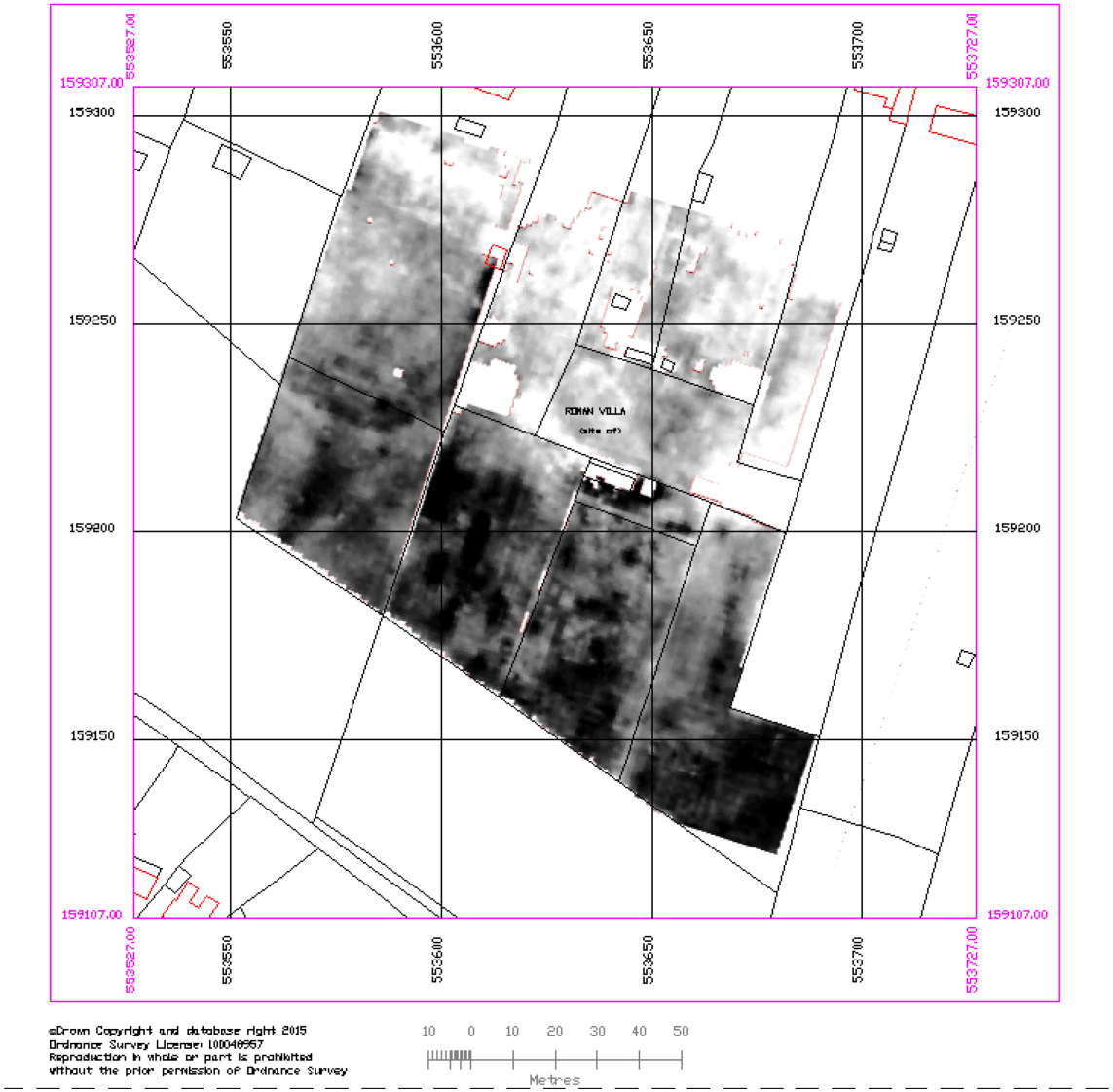

Figure 3. Survey results over OS Mastermap

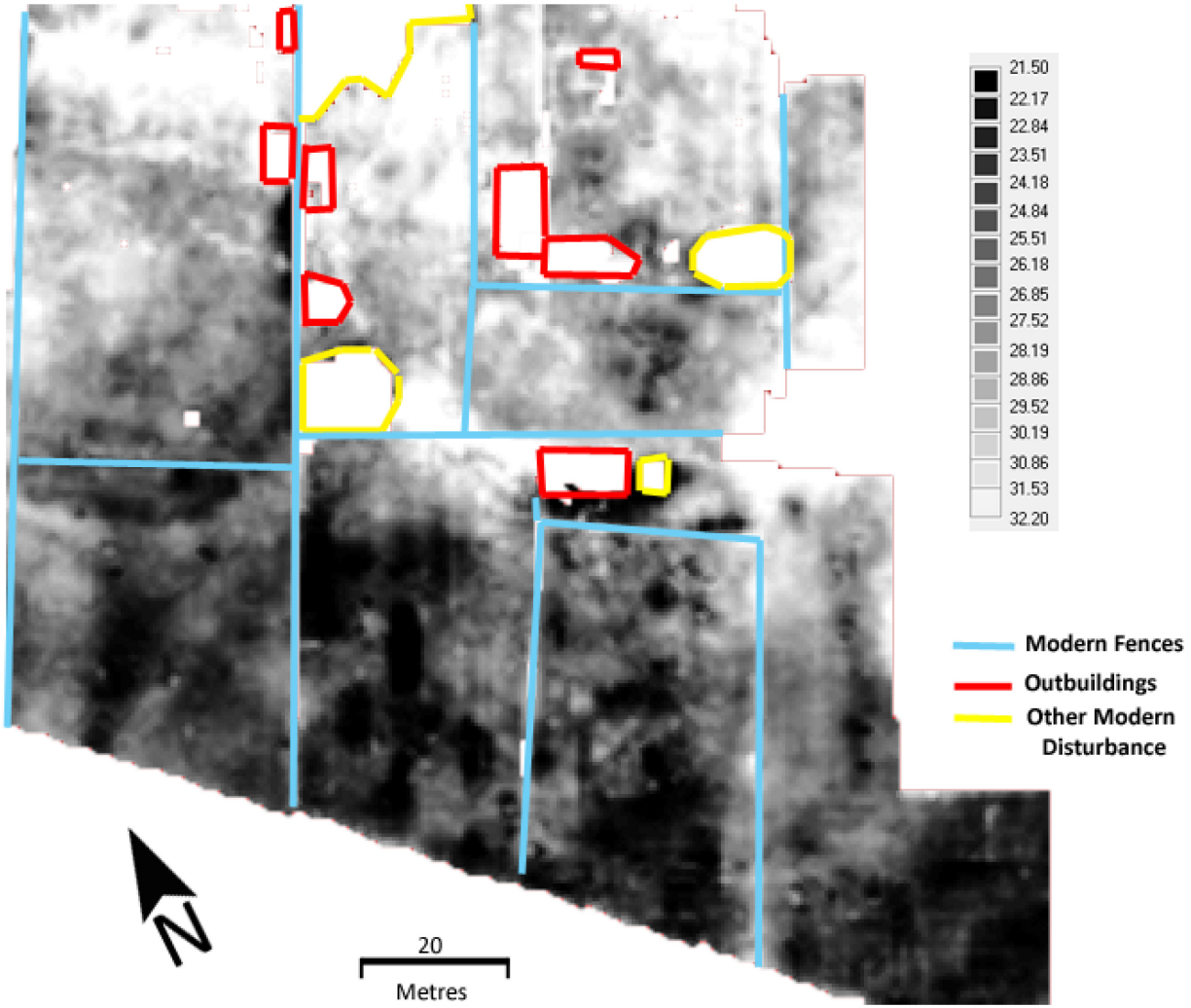

Figure 4. Survey Results - Non Linear Greyscale - Modern Features

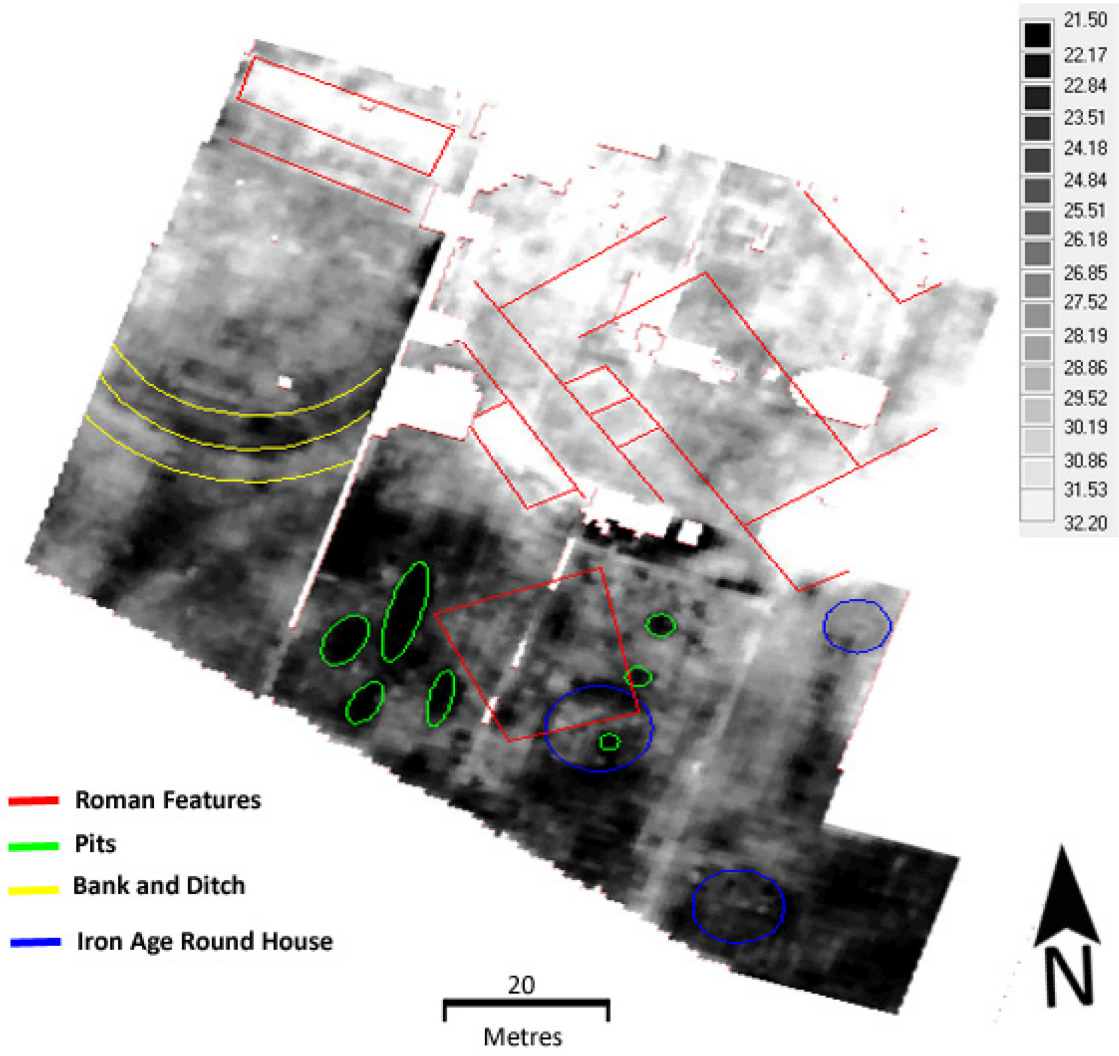

Figure 5. Results Interpretation

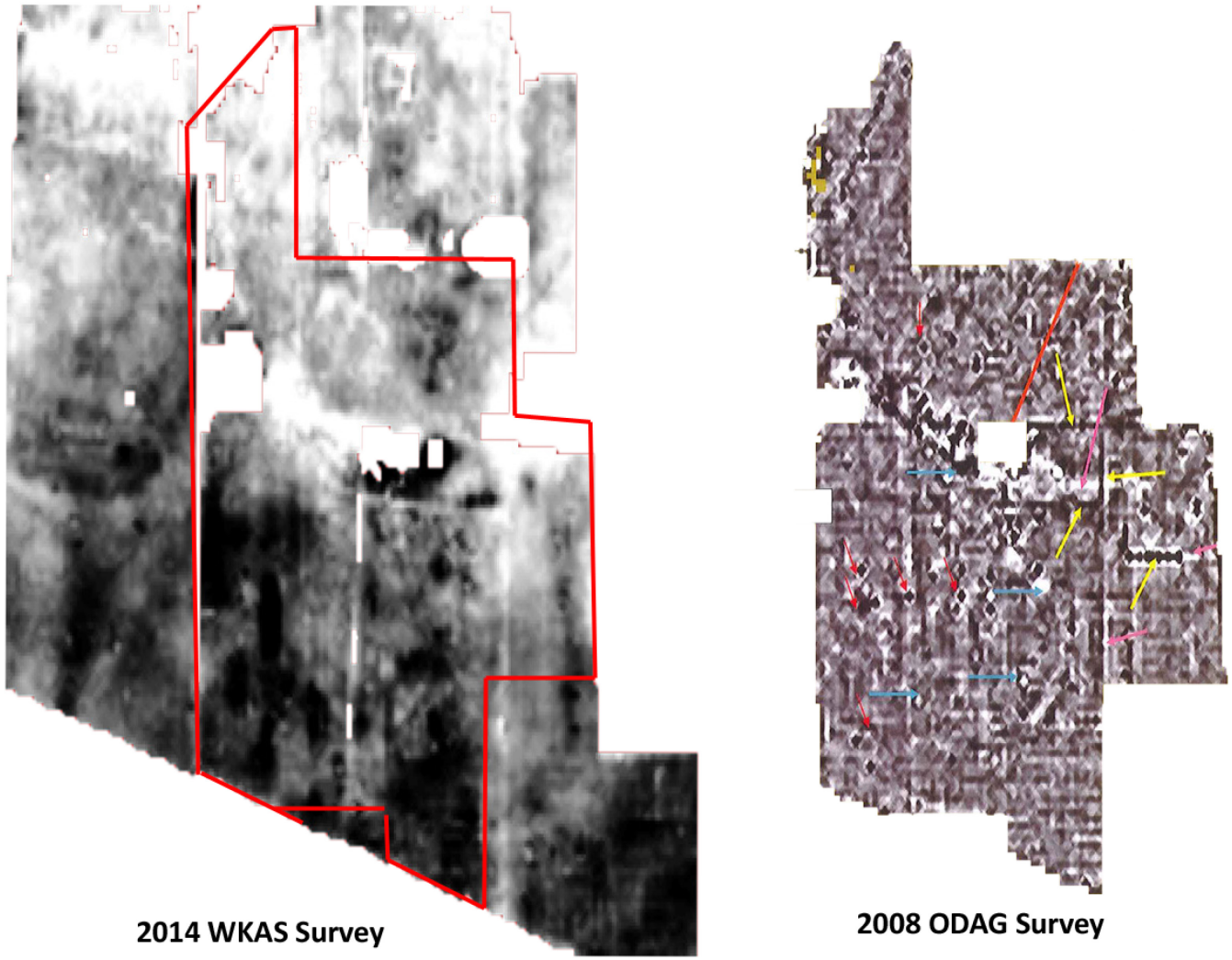

Figure 6. Comparison of Surveys : ODAG Survey © D Walshe 2008. Used under Fair Use

Summary of Key Data

Project Documentation	
Name of Site	Progress Villa
Spatial Coverage	TQ5355059300, TQ5369559120
Administrative Area	Sevenoaks District Council
County	Kent
Geology	West Melbury Marly Chalk Formation No Superficial Geology
Duration	21/03/2015 – 29/03/2015
Weather	Overcast, light showers
Soil Condition	Soft,Damp, some hard dry areas
Land Use	Pasture/Garden/Paddock
Monument Type	Building
Monument period	Roman
Scheduled Ancient Monument Number	Scheduled Monument 1005155
Surveyor	West Kent Archaeological Society
Client	
Related Archives	
Copyright	West Kent Archaeological Society

Geophysical Survey	
Survey Type	Earth Resistance
Instrumentation	Geoscan RM85
Area Surveyed	45 grids (1.8 Hectares)
Method of Coverage	Regular Grid
Traverse Separation	1 metre
Reading Interval	1 metre
Sampling Position	.5 metre in both directions
Grid Size	20 metre x 20 metre
Accuracy – Spatial	Grid layout may contains positioning error of 0.5 metre due to vegetation obstructing tapes during grid positioning
Accuracy - Readings	Automatic trigger, positioning by taped guide lines